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EXAMINER	
GUHARAY, KARABI	

ART UNIT	PAPER NUMBER
2879	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/702,558	EMILSSON, TRYGGVI	
	Examiner	Art Unit	
	Karabi Guharay	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Amendment, filed on 1/18/06*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-35,37-41 and 48-57* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *29,48-51 and 54-57* is/are allowed.

6)☒ Claim(s) *13,14,17,19-24,26-35,39-41,52 and 53* is/are rejected.

7)☒ Claim(s) *15,16,18,25,37 and 38* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Amendment, filed on 1/18/06 has been considered and entered.

Claim 29 has been amended.

Claims 54-57 are added.

Claim Objections

Claims 13 & 29-30, 35, 48, 52, 54 & 57 are objected to because of the following informalities: Each of these claims recites, "comprising the steps of". In order to comply with proper format "the steps of " should be changed to "steps of". Appropriate corrections are required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 13, 30, 35, 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiss (US 4749902) in view of Sekhar et al. (US 6455107) further in view of Sullivan (US 3867166).

Regarding claims 13, 30, 35 & 52-53, Weiss discloses a method of coating a metallic foil with a corrosion-protection film (lines 60 of column 1- line 36 of column 2), comprising the steps of applying a suspension of silica and then drying (thus adhering) to at least a portion of a metallic foil (lines 19-28 of column 3) exposing the silica containing metal foil assembly to a high temperature (see lines 30-38 of column 3), and attaching an electrical lead (4) to the foil (Fig 1, lines 23-24 of column 3).

But Weiss does not specifically disclose that the particular suspension of silica particles is a colloidal suspension.

However, Sekhar et al. disclose a method of making a corrosion resistance coating using colloidal slurry containing silica (lines 58-59 of column 3) and teaches that this type of coating is highly corrosion resistant and applying the coating and drying and exposing to high temperature.

Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to use colloidal silica, which is very effective in producing corrosion resistance coating on an article.

But both Weiss and Sekhar et al. do not disclose that the coated metal foil is exposed to a fusion temperature to effect fusion of silica particles to form a silica film on the foil.

However, Sullivan teaches a method of applying a corrosion resistance layer containing silica on the metal surface where after drying the coating, the coated article is exposed to a fusion temperature to effect fusion of silica particle to form silica film on the foil, and further teaches that such method of coating produces high corrosion resistance coating which has high adhesion to base metal (lines 24-40 of column 4). Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to heat the coated metal foil to heat up to a fusion temperature to fuse the silica particles on the metal surface since this will produce a stronger bonding of the layer to the metal base.

Regarding claim 14, Sekhar et al., disclose a method of dipping into the bath comprising colloidal silica (lines 47-49 of column 2).

Regarding claim 17, Sekhar et al. discloses that the bath comprises silica and an organic solvent (lines 58 of column 3-line 2 of column 4) but does not specifically mention organic solvent being methanol, however, selection of a known material for the suitable purpose is considered to be within the skill of art.

Regarding claims 19, & 20, Sekhar et al. disclose that the colloidal silica further comprises an organic binder (lines 1-2 of column 4), such as polyimides (see lines 29-35 of column 6).

Regarding claims 21 & 26, Weiss discloses that the foil comprises molybdenum (line 20 of column 1).

Regarding claims 22-24, Sullivan discloses that the fusion temperature is in the range of 1400-1700°F (line 24-25 of Col. 4). The same reason for combining art as in claim 13 applies.

Regarding claim 27, Sekhar et al. disclose that the silica colloid is adhered by spray coating, rolling, brushing or misting (lines 46-48 of column 2).

Regarding claim 28, Sekhar et al. disclose that the colloid is exposed to plasma or laser (lines 3-6 of column 4).

Regarding claim 31, Weiss discloses a second electrical lead (8) attached to the other end of the foil (6).

Regarding claims 33 & 34, Weiss discloses that the electrical lead forms an electrode for a high intensity discharge lamp such as halogen lamp (lines 47-48 of column 2).

Regarding claim 35, Sekhar et al. disclose a method of exposing an article to a predetermined temperature for a predetermined time comprising the steps of providing a heat source elevating the temperature of the source to a predetermined value then and passing the article for fusion of silica particles through the heat source at a rate to effect the exposure at a predetermined temperature for a predetermined time (lines 3-10 of column 4).

Regarding claim 39, Sekhar et al. disclose that the exposure is conducted in an inert atmosphere (lines 17-19 of column 8).

Regarding claim 40, Sekhar et al. disclose that the heat source is selected from the group consisting of a conductor, induction coil, a furnace, inert gas plasma and a laser (lines 2-11 of column 4).

Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weiss and Sekhar et al. as applied to claim 30 above, and further in view of Miyoshi et al. (US 4613301).

Regarding claim 41, combined structure of Weiss and Sekhar et al. disclose a conductor for a heat source but does not mention a coiled tantalum wire as the heater, however, Miyoshi et al. disclose that tantalum coils are suitable as ignition heater coil (lines 67 of column 3-line 2 of column 4).

Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to use coiled tantalum as a heat source in the device of Sekhar et al. for its suitability as a heating coil as disclosed by Miyoshi et al.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weiss, Sekhar et al. and Sullivan, as applied to claim 30 above, and further in view of Hull et al. (US 5269810).

Regarding claim 32, the combined method of Weiss & Sekhar et al. meets all the limitations of claim 32 except for the limitation of attachment of foil by crimping a portion of the foil around the lead.

Weiss simply discloses that the leads are attached to the foil but does not disclose the method of attaching.

However, Hull et al. disclose that crimping of the metal foil against the lead is a convention method of attaching (lines 66 of column 4-lines 2 of column 5).

Thus it would have been obvious to one having ordinary skill in the art at the time the invention was made to choose the method of crimping since this is a well known process of attaching metal foil to the lead wire in the art of light bulb.

Allowable Subject Matter

Claims 29, 48-51, 54-57 are allowed over the prior art of record.

Claims 15-16, 18, 25, 37-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 15, 16, & 48-51, the prior art of record neither shows nor suggests a method including all the claimed limitations of above claims, particularly the limitation of foil is withdrawn from the bath at a rate of about 1mm/sec to about 100 mm/sec.

Regarding claim 29, the prior art of record neither shows nor suggests a method of applying silica coating comprising all the limitations set forth in amended claim 29, particularly comprising exposing the silica powder on the foil to a predetermined fusion temperature for less than about 4 seconds.

Regarding claims 18 & 57, prior art of record neither shows nor suggests a combination of limitations set forth in claim 18, particularly comprising the limitation of applying a voltage to the metallic foil concurrent with immersion and withdrawal of at least a portion of the foil in the bath.

Regarding claims 25, 37, 38, prior art of record neither shows nor suggests a method including all the limitations of claims 25, 37, 38, particularly the limitation of predetermined time is about one-half second.

Regarding claim 54, prior art of record neither shows nor suggests a method including all the limitations of claim 54, particularly the limitation of predetermined time less than about 4 seconds.

Claims 55-56 are allowed for the same reason as applied to claim 54 for being dependent on claim 54.

Response to Arguments

Applicant's arguments filed 1/18/06 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no motivation to combine Weiss, Sekhar and Sullivan, examiner respectfully presents that Weiss discloses the quantity of coating applied per square centimeter (typically 5-10mg/cm^2), however, does not disclose or suggest the critical thickness of the coating in units of micron.

Weiss further emphasizes that such quantity of application is not critical, and lesser value is not desired and also greater quantity progressively interferes tightness. Applicant refers to Paragraph 0006 of the specification of the present invention which talks about the cross section of the metallic foil which is basically in a shape of elongated ellipse having center thickness from 20-50 microns, which is not the thickness of the applied coating on the metallic foil.

Sekhar discloses coatings of the "order of tens of micron". Applicant designates "tens of micron" as thick coating. Such presumption is bases on "Example I & Example III". However, it is not correct to designate Sekhar's thickness as "thick" only based on two discrete examples, while Sekhar discloses coatings of the order of tens, which includes 10-50 microns also.

Further as one cannot ascertain the thickness of Weiss's coating, it is baseless to compare Weiss's coating, as thin coating while Sekhar's coating is thick compared to Weiss's.

Further "thick" and "thin" are both relative terms. Unless provided with a standard for ascertaining the requisite degree, one cannot ascertain what is called "thick" and what is called "thin".

Now, in response to applicant's argument against Sullivan's reference, examiner respectfully presents that, first of all Sullivan does not specify the particle size, and second of all, 200-mesh sieve generally have hole openings having diameter of 75 microns. (US 5721187).

However, applicant recites, "opening every 127 microns", which doesn't give any estimation of the diameters of the holes in the sieve, thus cannot determine the particle size of the coating material of Sullivan. Further opening width of each hole in the sieve only determines the maximum size of the particle which can pass through the sieve, however can not determine the size of the particles which passes through, rather determines that 3% of the particles which could not pass have particle diameter greater than 75 microns.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (571) 272-2452. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Karabi Guharay
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Art Unit 2879